

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows.

1. (Previously Presented) A solid iron product formed by pressing and reforming dusts occurring in exhaust gases within a melting furnace during an iron and steel manufacturing process and subsequently collected by a dust collector, and containing iron as a principal component, wherein the solid product contains neither organic nor oxide binder.
2. (Previously Presented) The solid iron product as claimed in claim 1, wherein the pressing and reforming is caused by a mold.
3. (Previously Presented) The solid iron product as claimed in claim 1, wherein the solid iron product is a columnar body having a round cross-sectional shape.
4. (Previously Presented) The solid iron product as claimed in claim 3, wherein the solid iron product is 50 to 100 mm in diameter and 30 to 80 mm in height.
5. (Previously Presented) The solid iron product as claimed in claim 4, wherein the ratio of the height relative to the diameter is within the range of 0.7 to 0.8.
6. (Currently Amended) A process of manufacturing steel, comprising:
 - subsequently collecting dusts, occurring in exhaust gases within a melting furnace during an iron and steel manufacturing process by a dust collector, and containing iron as a principal component;
 - charging the dusts into a mold;
 - pressing the dusts within the mold without using an organic or an oxide binder to provide a solid iron product; and

reentering the solid iron product into the iron and steel manufacturing process,

wherein the solid iron product contains neither organic nor oxide binder.

7. (Previously Presented) The process of manufacturing steel as claimed in claim 6, wherein the mold is in the form of a vertically oriented cylindrical chamber.

8. (Previously Presented) The process of manufacturing steel as claimed in claim 6, wherein a powder of carbon, aluminum or the like generated during the iron and steel manufacturing process is mixed in the dust as a binder, and is then charged into the mold.

9. (Currently Amended) A manufacturing apparatus for a solid iron product that contains neither an organic nor oxide binder, comprising:

a mold in the form of a cylindrical chamber;

a lid member for closing one end of the mold; and

a plunger capable of advancing from an opposite end into the mold to press dusts, occurring in exhaust gases within a melting furnace during an iron and steel manufacturing process and subsequently collected by a dust collector, and containing iron as a principal component, within the mold,

wherein the apparatus forms the solid iron product without adding neither the an organic nor or an oxide binder.

10. (Previously Presented) The manufacturing apparatus for the solid iron product as claimed in claim 9, wherein the mold is oriented vertically and the end at which the lid member of the mold is provided is at a lower side.